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Factors Affecting Adult Mortality in India: An Analysis of National Family Health Surveys of 1992-93 and 1998-99 (NFHS I and II)

Introduction

THE health of children has dramatically improved over the past decades. Life expectancy at birth in both developed and developing countries has risen swiftly and much of this rise is attributable to large reduction in infant and child mortality. Many efforts have been made to study infant and child mortality along with maternal mortality in almost all developing countries. But such academic attention has been lacking in studying the determinants of adult health and mortality in these countries. Further, very few studies are available on the consequences of adult mortality, particularly with regard to its socio-economic and health impacts on the family (Roy *et al*., 2000). This is the group which constitutes the working force and is very crucial for the development of any society because they are economically productive, biologically reproductive and responsible for the support of the children and elderly population (Feachem *et al*., 1992).

Additionally, the proportion of adults out of total population increases substantially as a country passes through the demographic transition process. According to the Population Division of the U.N., the percentage share of 15 to 64 age group people of the world in 1960 was 57 and it has increased to 64.4 in 2005. On the other hand, percentage share of population below 15 has been reduced from 37 in 1960 to 28 in 2005. Any distortion or change in the enormous age group may have substantial impact on the socio-economic development of a country. It is found that the consequences of adult ill health and mortality are substantial and larger than those of non-adults. Adult ill health and mortality can directly affect production, earnings, investment and consumption and health of the other members of the household

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(Over *et al*., 1992). Death of an adult member in a family creates many problems for the surviving members. Premature death of the principal income earner often inflicts serious financial hardship to the family. Another important point for adult mortality is that sometimes for a specific adult group, mortality differentials are higher than for children. For example, the risk of maternal mortality can be one hundred times greater in developing countries than in developed countries, while the risk of death in childhood is only six to twenty times greater in developing countries (Murray *et al*., 1992). Nevertheless knowledge of levels, causes and distributions and determinants of adult health and adult mortality is extremely deficient in developing countries as compared to detailed information available in developed countries as we are discussing below.

Determinants of Adult Mortality: A Review of Research

Numerous studies are available in developed countries addressing the socio-economic differentials in adult mortality. Emphasising to the inequality in distribution of some welfare related measures among different socio-economic groups, Preston (1994) pointed out that if inequalities in the outcome associated with the structure are very high, a sense of collective responsibility can generate efforts to reduce inequality. He reviewed the evidence about the extent and sources of socio-economic differences of mortality and health among older persons in United States, with some reference to other countries and concluded that people with lower level of education, income and occupational status are poorly placed in most of the bio-medical and behavioural variables related with health. Socio-economic factors like income, religious affiliation seem to play an increasingly important role in the explanation of regional mortality patterns in the Netherlands (Mackenbach *et al*., 1992). There is considerable evidence demonstrating that an individual's educational status, income and occupation are important predictors of mortality and morbidity. Kitagawa and Hauser (1973) did one of the most complete studies of mortality differentials done in the U.S.; they matched a sample of death certificates for persons 25 years of age and older who died from May through August 1960 with census records on the same persons enumerated in the 1960 census (with the reference date of April 1, 1960). They found that in 1960 higher Socio-economic Status (SES) groups exhibited lower rates of all-cause mortality than did lower SES groups. One of their principal measures of socio-economic status was educational attainment as assessed by years of school completed. It was seen that mortality varied inversely with educational attainment. This study further suggested that improved socio-economic conditions associated with education and income might have a marked effect on the deaths of men 25 to 64 and on deaths of women of all ages 25 and over. The range of mortality differentials was larger among individuals 25-64 years of age than among older individuals, and greater among females than males. However as mentioned above, there is lack of large scale study in developing world to relate adult mortality to a broad spectrum of social and economic factors, including education, income, occupation, race, marriage etc., particularly due to the prevailing misconception about adult mortality. Murray *et al*. (1992) challenged a number of misconceptions about adult mortality in the developing world and concluded that there are substantially higher rates of adult mortality in these countries than in the industrialized countries

with market economies. He remarked further that nearly in all developing countries, mortality of men is higher than that of women despite the extra risks associated with child bearing and cancers of the cervix and breast; however, avoidable mortality is higher for women.

Research on adult mortality in India seems to be limited, as all existing literature tends to focus only on level, trend and gender differential of adult mortality. One important reason behind this lack of understanding on the socio-economic determinants of adult mortality in India is lack of data; in particular, the SRS does not provide socio-economic information of adult deaths. Using SRS and Vital Registration data, Dyson (1984) focused on sex differentials in adult mortality in India and found that after age 35 men almost certainly experience much heavier death rates than women, and at these later ages male life expectation is probably significantly shorter than that of the females. He further remarked that male death rates at later ages in India are surprisingly high by international standards. Krishnaji *et al*. (2002) concluded in the age group 15-19, mortality rates for females are still (in 1997) 27 per cent higher than males in the rural areas. However, in urban areas females experience five per cent higher mortality than males implying much lower variation between genders to that of rural areas. Also, there is a wide range of variation in adult mortality across the regions of India.

Despite the limitation of the existing literature focusing on determinants of adult mortality, theoretically one should expect that there are some key issues and unanswered questions that need to be addressed to move socio-economic mortality studies of adults in India beyond gender differential to a more inclusive perspective. For example, there may be a common notion that adult mortality is an issue mainly among rich people as almost all deaths in the developed countries occur among adults. However, as noted above, some studies disprove it (Preston, 1994). Further, as existing literature on infant and child mortality shows the significance of the importance of socio-economic and demographic variables for example age, sex, education of the mother, income, size of the household etc. in differentiating child mortality, this issue needs to be examined in the context of adult mortality since determinants of mortality in these two segments of the population may differ from each other. The objective of the present paper is to study above mentioned various socio-economic, demographic and behavioural factors influencing adult mortality.

Data Sources

Mortality statistics in India are very limited like other Asian countries. Although the data from the Sample Registration System (SRS) appear to be valid, it provides little information regarding the background characteristics of the dead person. Unlike the SRS, the National Family Health Surveys of 1992-1993 and 1998-1999 (NFHS I & II) include socio-economic variables, which allow for more comprehensive analyses. The NFHS is a large scale, multi-round survey conducted in a representative sample of households throughout the India. The three rounds of NFHS are the outcomes of collaborative efforts of many organizations for example, the International Institute for Population Sciences (Mumbai), United States Agency for International Development and East West Center/Macro International. The NFHS provides State level estimates of demographic and health Parameters as well as data on various

socio-economic and programmatic dimensions, which are critical for bringing about the desired change in demographic and health parameters.

These surveys questioned the head of the household or any other adult member on the number of deaths that occurred in the household during the two years preceding the survey, the cause of death, age and sex of the deceased member. Here we apply the first two rounds of NFHS in order to see the consistency of the results in mortality among adults.

Methodology

The households data of NFHS provides information of age of the usual residents at the time of survey and age along with year of death for the dead persons. To get the age structure two years back for those persons who are living at the time of survey, we have simply subtracted two years from their age at the time of survey. On the other hand, to get the age structure two years back for those persons who have died proceeding two years to the survey, we first calculate their age at survey date if they would have lived up to the survey date. To get a dead person's age at survey if he/she would have lived, interval between the survey date and the time of the death (month and year of death) has been calculated and this has been added to the age at death. Now from this age, two years have been subtracted to obtain what were the ages two years before the survey. Thus people were exposed to the risk of death two years prior to the survey date. We construct dependent variable assigning zero to the persons who have lived up to survey date and one to the persons who have experienced death before survey date. The explanatory variables used in this analysis are important socio-economic and demographic variables like sex, size of the family (less than 5 members, 5 to 10 members and above 10 members), caste (General or OBC, ST and SC), Mass Media (No exposure and at least one exposure), religion (Hindu, Muslim and Others), Standard of Living (Low, Medium and High), literacy composition of household (no literates, one or two literates and more than two literates), occupation of the household head (Agricultural activities, manufacturers activities and others) and dependency ratio (less dependency and high dependency).

The size of the family may be an important variable in the adult mortality analysis as it may increase number of exposed persons to death in the family. In order to grab the impact of the socio-cultural practices observed among various religion groups, religion has been categorized under three heads i.e. Hindu, Muslim and others. Further, in India the most disadvantaged and traditionally oppressed castes are recognized as Scheduled Castes (SC), indigenous tribes as Scheduled Tribes (ST) and other socially and educationally backward communities as Other Backward Classes (OBC). However, the NFHS I provides only the ST/SC status of the household head and hence we have collapsed the OBC category with the General category. The survey includes information on access to radio, television and newspaper as mass media and this has been used to assess the mass media exposure of the respondent. The exposure to mass media has been categorized under two heads, no exposure and exposure to at least one medium. The standard of living index (SLI) has been considered as a proxy measure of economic condition of the household. The index has been created by taking into account information on the type of house, number of rooms, separate room for

kitchen, toilet facility, source of drinking water facility, source of lighting, type of fuel used for cooking and other resources and material goods available in the household. Higher weightage has been given to responses, which reflect a higher standard of living than other responses. The SLI score ranges from 0-14 for low SLI, 15-24 for medium SLI to 25-67 for a high SLI (IIPS and Macro, 2000). The literacy composition of the household may be an important explanatory variable as educated person has more exposure to the outer world resulting in more consciousness about health and more accessibility to good treatment. As data does not provide the occupation of the dead person, we take occupation of the household head classified in three categories namely, agricultural activities, manufacturing and services and others. Dependency ratio is the ratio of the number of persons in the age group 0-15 and 59+ to the number persons in the age group. If this ratio is higher than one, it is categorized as high dependency. Here it is worth mentioning that the construction of variables is same in both data set and we have included all possible relevant variables available in the both set of data.

Multivariate logistic analysis has been applied to determine different factors affecting adult mortality for the age group 15-59. To find out whether any differential exists between two genders, logistic regression has been carried out separately for each sex.

Results

Table 1 presents percentage distribution of persons exposed (to the risk of death) by their background characteristics for the dependent variable analyzed in Table 2. Sex distribution is almost the same in the samples from both the NFHS I and the NFHS II. A majority of the persons are either from small family or from medium family with low or medium standard of living. During the first round of NFHS, sixty per cent of the populations were unexposed to any kind of mass media which has reduced to fiftyfour per cent in the next round of the survey. Percentage of persons coming from Hindu religion is much higher than any other religion and the religious distribution is about the same in the both samples. Literacy composition has changed considerably from NFHS I to NFHS II as shown in the table. Persons having more than two literates in their household has increased about ten points from NFHS I to NFHS II. Similarly there is a variation in the occupational structure particularly in manufactured and other categories in the two samples.

Table 2 shows the results of the logistic regression for the age group 15 to 59 from the NFHS I and the NFHS II data. After introducing age square to allow for non-linear relationship between age and mortality, it is distinct from the table that in both sets of data that the effects of the linear and the quadratic terms in age (age and age square) are in opposite directions. Analysis of NFHS II data shows that females experience around 10 per cent lower mortality than males and the difference is statistically significant at five per cent level. On the other hand, results from NFHS I indicate opposite direction which is, however, not statistically significant. As compared to small families, large families experience about 60 per cent higher mortality in NFHS II data which is contrast with the results of NFHS I. Caste of the household head along with mass media exposure do not seem to be important predictors of adult mortality as a whole. People belonging to the Muslim religion have lower risk of premature mortality

TABLE 1: PERCENTAGE DISTRIBUTION OF THE EXPOSED PERSONS BY BACKGROUND CHARACTERISTICS

	NFHS II		*NFHS I*		*NFHS II*				*NFHS I*			
	Total		*Total*		*Male*		*Female*		*Male*		*Female*	
	Sample	*%*	*Sample*	*%*	*Sample*	*%*	*Sample*	*%*	*Sample*	*%*	*Sample*	*%*
SEX												
Male	96910	50.4	99454	50.4	–	–	–	–	–	–	–	–
Female	95413	49.6	97818	49.6	–	–	–	–	–	–	–	–
Size of the Family												
<5 members	44919	23.4	39762	20.2	22267	23.0	22652	23.7	19462	19.6	20292	20.7
5 to 10 members	121280	63.1	126405	64.1	61335	63.3	59944	62.8	64191	64.5	62196	63.6
Above 10 members	26125	13.6	31134	15.8	13308	13.7	12816	13.4	15801	15.9	15329	15.7
Caste												
General or OBC	124978	65.0	149936	76.0	64982	68.0	63996	67.0	75450	75.9	74461	76.1
ST	21044	10.9	21610	11.0	12021	12.9	12022	12.0	10883	10.9	10726	11.0
SC	36391	18.9	25755	13.1	19906	20.0	19395	19.8	13121	13.2	12631	12.9
Mass Media												
No exposure	104779	54.5	119352	60.5	52415	54.1	52363	54.9	59786	60.1	59543	60.9
Some exposure	87544	45.5	77949	39.5	44495	45.9	43049	45.1	39668	39.9	38275	39.1
Religion												
Hindu	160572	83.5	166116	84.2	81111	83.7	79461	83.3	83895	84.4	82194	84.0
Muslim	20513	10.7	20088	10.2	10151	10.5	10361	10.9	10028	10.1	10060	10.3
Others	11238	5.8	11096	5.6	5647.8	5.8	5590	5.9	5531	5.6	5564	5.7
Standard of Living												
Low SLI	71689	37.3	118690	60.2	35640	36.8	36049	37.8	59249	59.6	59421	60.7
Medium SLI	92744	48.2	66934	33.9	47237	48.7	45508	47.7	34263	34.5	32662	33.4
High SLI	27890	14.5	11677	5.9	14034	14.5	13856	14.5	5943	6.0	5734	5.9
Literacy Composition of Household												
No literates	16692	8.7	38817	19.7	7838.9	8.1	8853	9.3	18932	19.0	19883	20.3
One or two literate	52534	27.3	75959	38.5	25786	26.6	26749	28.0	38093	38.3	37848	38.7
More than two literate	123097	64.0	82524	41.8	63286	65.3	59811	62.7	42429	42.7	40087	41.0
Occupation of HH Head												
Agricultural activities	106632	55.4	107480	54.5	53777	55.5	52855	55.4	54545	54.8	52914	54.1
Manufacturing/Services	35289	18.4	57386	29.1	17682	18.2	17607	18.5	29395	29.6	27985	28.6
Others	50403	26.2	32434	16.4	25452	26.3	24951	26.2	15514	15.6	16920	17.3
Dependency Ratio												
Low dependency	144800	75.3	144091	73.0	74385	76.8	70415	73.8	74225	74.6	69842	71.4
High dependency	47523	24.7	53210	27.0	22526	23.2	24998	26.2	25229	25.4	27976	28.6

than people belonging to the Hindu religion as seen from both the data sets. The death of adults is very strongly related to the economic status of the household as there is always a negative relationship between economic status and mortality as observed in the table. As standard of living increases, probability of death among adults decreases. Similarly, literacy composition of the house is an important predictor of adult mortality as all results are statistically strongly significant at one per cent of level of significance. From the analysis of NFHS I it is found that persons belonging to households where the occupation of the head of the household is agricultural have lower risk of mortality than those from households where occupation of the head is manufacturing or services or other. However NFHS II results show only people from 'other' occupations have higher risk of death as compared to people from the agricultural occupation. Both the analyses show consistently that dependency ratio of the household can play an important role in mortality among adults as with the increase in dependency ratio mortality among adults also increases.

TABLE 2: FACTORS AFFECTING MORTALITY ABOVE AGE 15-59, NFHS I AND NFHS II, ALL INDIA

	NFHS II		*NFHS I*	
	Exp (β)	*Sig.*	*Exp* (β)	*Sig.*
Age	0.969868**	0.010	0.915843***	0.000
Age Square	1.001174***	0.000	1.001846***	0.000
Sex				
Male				
Female	0.887511**	0.012	1.05342	0.272
Size of the Family				
<5 members				
5 to 10 members	1.468088***	0.000	1.044379	0.513
Above 10 members	1.597559***	0.000	0.947553	0.579
Caste				
General or OBC				
ST	1.095275	0.215	0.919987	0.284
SC	1.015532	0.804	1.048828	0.482
Mass Media				
No exposure				
Some exposure	0.915575	0.139	1.07237	0.261
Religion				
Hindu				
Muslim	0.73017***	0.001	0.873307*	0.098
Others	0.94979	0.638	1.178657	0.109
Standard of Living				
Low SLI				
Medium SLI	0.882466**	0.033	0.719530***	0.000
High SLI	0.751838***	0.005	0.663957***	0.002
Literacy Composition of Household				
No literates				
One or two literate	0.901533**	0.043	0.743858***	0.000
More than two literate	0.499384***	0.000	0.565655***	0.000
Occupation of HH Head				
Agricultural activities				
Manufacturing/ Services	0.978398	0.737	1.199668***	0.001
Others	1.099678*	0.084	1.382041***	0.000
Dependency Ratio				
Low dependency				
High dependency	1.762526***	0.000	2.465219***	0.000

Note: ***0.01 < *p*, **0.05 < *p* and *0.1 < *p*.

Table 3 further compares the determinants of adult mortality between males and females. A close look at this table reveals that except a very few variables like caste, religion and size of the family, all other variable have impact in the same direction on adult mortality as seen in the analysis for both the sexes together. Nevertheless the magnitudes of impact of these characteristics vary from each other, for example, as literacy level in the household increases from no literates to two or more literates, the risk of mortality among males reduces by 60

per cent whereas the same reduction for females is 40 per cent. Age, standard of living of the household, and dependency ratio has strong impact on the premature mortality and the degree of consensus between NFHS II & NFHS I is very high. NFHS II indicates that males belonging to the SC category have lower chance of dying during adult ages as compared to those of the general category whereas females from the SC experience higher chance of dying in that age as compared to females belonging to general castes. However the effects as seen from the NFHS I data are not statistically significant. Similarly, the level of

TABLE 3: FACTORS AFFECTING ADULT MORTALITY BY FOR AGE 15-59, NFHS I AND NFHS II, ALL INDIA

	NFHS II		*NFHS I*	
	Male *Exp* (β)	*Female* *Exp* (β)	*Male* *Exp* (β)	*Female* *Exp* (β)
Age	0.975789	0.962210**	0.915693***	0.913161***
Age Square	1.001258***	1.001131***	1.001994***	1.001773***
Size of the family				
<5 members				
5 to 10 members	1.225551**	1.739858***	0.809462**	1.324100***
Above 10 members	1.365166**	1.869347***	0.678727***	1.272856*
Caste				
General or OBC				
ST	1.086229	1.094462	0.948189	0.890469
SC	0.837899**	1.228890**	1.112657	0.988626
Mass Media				
No exposure				
Some exposure	0.899775	0.922574	0.893106	1.259330***
Religion				
Hindu				
Muslim	0.704467***	0.751158**	0.943781	0.818480*
Others	1.177666	0.710103*	1.388403**	0.977238
Standard of Living				
Low SLI				
Medium SLI	0.916583	0.854155*	0.732868***	0.696808***
High SLI	0.770649*	0.733242*	0.721880**	0.580053***
Literacy Composition of Household				
No literates				
One or two literate	0.780386**	1.038128	0.713005***	0.756458**
More than two literate	0.406029***	0.612901***	0.506908***	0.620068***
Occupation of HH Head				
Agricultural activities				
Manufacturing/Services	0.976265	0.981499	1.464217***	0.989882
Others	1.101898	1.102714	2.334884***	0.845976*
Dependency Ratio				
Low dependency				
High dependency	1.954149***	1.598663***	2.649092***	2.340609***

Note: ***0.01 < *p*, **0.05 < *p* and *0.1 < *p*.

concordance between two data sets about the impact of mass media and occupation of the household head is very low.

Discussion

One important finding from this study is that there is a substantial degree of variability in the adult mortality due to several demographic and socio-economic characteristics. This finding is supported by some other previous studies (Preston and Taubman, 1994). Age is a very important characteristic in demography which is closely tied with health and mortality of an individual. It is observed that the effect of the linear term of age on mortality is negative but the age square introduced to observe the non-linear effect of age on mortality shows a positive effect. The NFHS II data reveal that male go through around twelve per cent higher risk of mortality during their adulthood. This is consistent with the SRS estimates as calculation of adult mortality index ${}_{45}q_{15}$ from SRS abridged life for India shows that female mortality rate has been is consistently lower than male mortality in the last thirty years and the situation is same in nearly all developing countries as noted above (Murray *et al*., 1992). However, it is worth noting that there is no concordance between the results from the NFHS I and the NFHS II as effects from the NFHS I are not statistically significant and hence it is difficult to infer that sex is an important determinant of adult mortality.

Out of a very large number of factors, which can cause an individual risk of premature death, some are more important than others in the sense that they contribute a large number of deaths. Existing literature shows, among all socio-economic factors, income, education and occupation are the most important one as these three factors usually lead to social stratification, which is further interlinked with mortality differentials. Results obtained from multivariate analysis reveal this reality; standard of living of the exposed persons is playing a significant role in explaining mortality differentials for all sex and age groups. It shows that mortality goes down as standard of living rises. Poor economic condition may lead to poor diet, more physical activity and less resource to pursue health care goals which can contribute to degradation of health and death at a premature age. Poor people are already burdened with greater risks of disease, coupled with limited access to health care and subject to other health disparities. Another important determinant of mortality differential, as literature shows is education. As data on hand does not provide educational level of the dead person, literacy composition of the household has been considered to assess the influence of education on death. Results indicate that literacy composition of the household is an important factor that tends to lower mortality. It is interesting to observe that having simply one or two literate persons in the household has a significant negative effect on the mortality of the members of the household.

Difference in mortality by occupation has been among the major interests in studies in mortality. Knowledge of a person's occupation provides a significant insight into his physical environment, his social milieu, his educational background, his income and his life style. As NFHS data provides us occupation of the living persons only, occupation of the household head has been considered as a proxy of the occupational status of the household. However no important conclusion can be drawn due to lack of consistency in the results from the two

data sets. Religion seems to play a very important role in Indian families as several customs and habits related with religion have direct or indirect impact on the health behaviour of that household. Similarly, caste, which originated on the basis of occupation of an individual, has several implications on the day-to-day activities. Furthermore these are the factors, which lead to the rigid social stratification restricting social mobility on account of caste and religion endogamy. Therefore it is necessary to see whether these two factors influence mortality of the adults. People from the Muslim religion experience low premature mortality as compared to the Hindu population. Caste *per se* may not be an important factor for explaining premature mortality as seen from the results obtained in the multivariate analysis. At the household level, one more factor that deserves our attention is composition or size of the household. A family with larger number of members is more likely to experience adult mortality than a family with smaller number of members. The *households* direction of the effect of this variable is completely opposite in the case of child mortality as has been found from previous studies, that is, the incidence of child mortality is higher in nuclear families than the joint families (Saksena and Srivastava, 1980).

Another attention grabbing characteristic is dependency ratio of the household, which can be regarded as a good indicator to observe how economic burden can affect the health of young and old adults. For the adults of working age, dependency ratio is positively related with mortality. If the dependency ratio of a household is high, it may affect the health of the earning member of the household, as he has to carry all economic burdens of the dependents.

As mentioned earlier, separate regression analysis for each sex makes it clear that the likelihood of death for different factors significantly varies for each sex. The impact of increasing size of family members on female adult mortality is higher than that for male.

Summary and Conclusion

This study finds that the determinants of adult mortality are many and diverse in nature; mortality differential among adults by socio-economic and demographic characteristics is revealed by this analysis. However, the magnitude of impact on mortality of adults is different for socio-economic characteristics, e.g. education of the household individuals has stronger impact than the caste of that person. Some of the key findings of this study are widely held in the context of India whereas some others are quite contradictory and are against generally accepted notions. Wealth of the household is one of the paramount determinants of adult mortality in India as there is a strong negative correlation between mortality of adults and standard of livings of the households. Like other developing countries, educational composition of the household is a key factor influencing adult mortality; improvement of which can reduce substantially premature adult deaths in India. Religion has impact on adult mortality but there is no clear relationship between caste and premature death of adults. The composition of the household from economic perspective has significant importance in determining the deaths of adults; as dependency ratio of the household increases, mortality of the income earner section increases.

Premature adult mortality in India is an important issue for further research as it has significant negative consequences on the economy as well as society of the country. There

is a lot of scope to find out the correlates of adult deaths in future which could not be addressed here due to lack of data. For example, life style variables like smoking tobacco, drinking alcohol etc. which are proved to be important determinants in developed countries, could not be included as the data does not permit us to do that. Further, as we were looking for consistency of the results from two rounds of NFHS data, we have included only those variables which are relevant for premature adult deaths and available in both the sets of data. Nevertheless the analysis presented in this paper shows mortality can be reduced substantially by intervening in certain socio-economic factors. Although there are some policies to combat mortality due to some major diseases such as malaria or HIV/AIDS or maternal mortality, a coherent policy is necessary to prevent premature death so that loss suffered by family or society due to early death of adult members can be minimized. In formulating health policies, the people living at the bottom of the socio-economic strata of the society should get more importance in utilizing the health care facilities to reduce avoidable mortality.

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